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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/341,101	08/18/1999	LARS ERICSSON	185/054	4745

7590 04/20/2004

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EXAMINER

HERNANDEZ, OLGA

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 04/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application N .</b>	<b>Applicant(s)</b>	
	09/341,101	ERICSSON ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Olga Hernandez	3661	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 March 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12,14-16,18,19,21-25,27,28,30 and 31 is/are rejected.
- 7) ☒ Claim(s) 13,17,20 and 29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 July 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed 3/24/04 have been fully considered but they are not persuasive.

The applicant argues that Gudat does not the how determine the inclination of the working tool. The examiner agrees. However, the claim language does not cite “determining the inclination of the working tool.”

Regarding the arguments for the 103 rejections, to establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP § 2143 - § 2143.03 for decisions pertinent to each of these criteria.

The applicant argues that Gudat does not teach “a position determining apparatus on a machine that provides data corresponding to the orientation of a designated place on the machine in a fixed coordinate system.” The examiner disagrees. Gudat teaches it in page 18, lines 22-25. Moreover, the applicant admitted in his arguments (page 13, 2<sup>nd</sup> paragraph) that Gudat computes the orientation.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 14, 16, 28, 29 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Gudat et al (WO 95/28524).

As per claims 1 and 14, Gudat discloses:

A position determining apparatus comprising (figure 2):

- at least one detector equipment placed generally at a designated place on the machine spaced away from the working part of the tool, the position determining apparatus configured to provide data that corresponds to the position and orientation of the designated place on the machine in a fixed coordinate system (figure 4);
- at least one position relationship device configured to determine a positional relationship of the working part of the tool relative to the designated place on the machine in a machine-based coordinate system (page 28, lines 32-35);
- a calculating device operatively configured to provide at least one of the position and the orientation of the working part of the tool in the fixed coordinate system based upon the position and orientation of the

designated place on the machine in a fixed coordinate system and the positional relationship of the working part of the tool relative to the designated place on the machine in the machine-based coordinate system (figure 7e).

As per claims 16, 28 and 31, Gudat discloses a stationary measuring station placed in the vicinity of the machine, the stationary measuring station operatively configured to determine the position of the machine in cooperation with the detector equipment; and the at least one detector equipment comprises at least one movable detector unit movable between determinable positions in relation to the machine (figures 1-5).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 6 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gudat et al (WO 95/28524) in view of Diekhans (6,073,070).

As per claims 3, 6 and 19, Gudat does not teach the position-determining apparatus further comprises a stationary measuring station placed in the vicinity of the machine, the stationary measuring station operatively configured to determine the position of the machine in cooperation with the detector equipment; and the at least one detector equipment comprises at least two detector units placed at the designated place on the machine arranged in fixed positions

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relative to the machine, the at least two detectors arranged to cooperate with the stationary measuring station to give the orientation in space for the designated place on the machine. However, Diekhans teaches it in figure 7. Therefore, it would have been obvious to one of ordinary skill in the art to combine the aforementioned inventions in order to optimize the operation of the vehicle.

Claims 2, 4, 7, 15, 27 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gudat et al (WO 95/28524) in view of Ford (6,211,821).

As per claims 2, 4, 7, 15, 27 and 30, Gudat does not teach the north-seeking/target unit. However, Ford teaches it in column 1, line 20. Therefore, it would have been obvious to one of ordinary skill in the art to combine the aforementioned inventions in order to enhance the system

Claims 5, 8, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gudat et al (WO 95/28524) in view of Johnson (5,606,444).

As per claims 5, 8, 18 and 20, Gudat does not teach the optical unit aligns itself towards the stationary measuring station with help. However, Johnson teaches it in column 2, lines 5-15. Therefore, it would have been obvious to one of ordinary skill in the art to combine the aforementioned inventions in order to enhance the system.

Claims 9 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gudat et al (WO 95/28524) in view of Schupfner (6,374,190).

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As per claims 9 and 22, Gudat does not teach how to calculate the angular position relative to the map. However, Schupfner teaches it in column 1, lines 17-25. Therefore, it would have been obvious to one of ordinary skill in the art to combine the aforementioned inventions in order to enhance the system.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gudat et al (WO 95/28524) in view of Johnson (5,606,444), further in view of Ford (6,211,821).

As per claim 21, neither, Gudat nor Johnson teaches the north-seeking/target unit. However, Ford teaches it in column 1, line 20. Therefore, it would have been obvious to one of ordinary skill in the art to combine the aforementioned inventions in order to enhance the system.

Claims 10 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gudat et al (WO 95/28524) in view of Ethridge (5,798,733).

As per claims 10 and 23, Gudat does not teach the accurate device that at time intervals measure the actual position of the vehicle. However, Ethridge teaches it in column 2, lines 17-23. Therefore, it would have been obvious to one of ordinary skill in the art to combine the aforementioned inventions in order to enhance the system.

Claims 11 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gudat et al (WO 95/28524) in view of Ethridge (5,798,733), further in view of Vanderwerf (5,774,832).

As per claims 11 and 24, neither Gudat nor Ethridge teaches how to calculate the vehicle acceleration and how to integrate the acceleration. However, Vanderwerf teaches it in column 1,

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lines 10-16. Therefore, it would have been obvious to one of ordinary skill in the art to combine the aforementioned inventions in order to enhance system.

Claims 12 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gudat et al (WO 95/28524) in view of Ethridge (5,798,733), further in view of Yamada et al (5,974,675).

As per claims 12 and 25, neither Gudat nor Ethridge teaches what is stated by the applicant. However, Yamada teaches it in the abstract. Therefore, it would have been obvious to one of ordinary skill in the art to combine the aforementioned inventions in order to enhance the system.

#### ***Allowable Subject Matter***

Claims 13, 17, 20, 26 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period



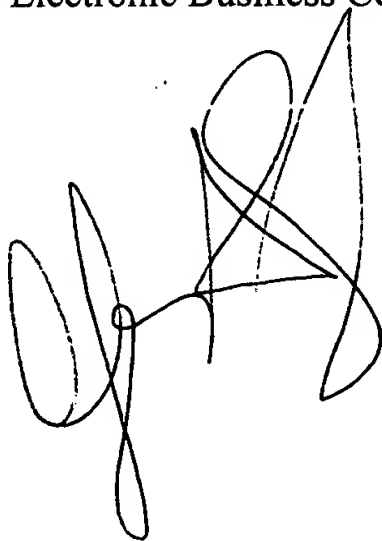
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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

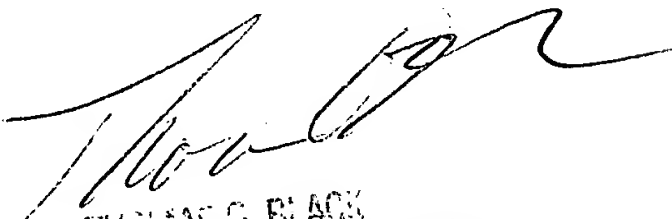
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olga Hernandez whose telephone number is (703) 305-0918. The examiner can normally be reached on Monday through Friday from 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (703) 305-8233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Olga Hernandez  
Examiner  
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